

WE CLAIM:

1. A liquid treating apparatus comprising:

a treating tank having at least two walls formed with a liquid inlet and a liquid outlet through each of which a liquid to be treated flows, respectively; and

a filtering layer unit including an antibacterial filtering layer, an adsorptive filtering layer and a filtering layer, the filtering layer unit being disposed between the liquid inlet and outlet.

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2. A liquid treating apparatus according to claim 1, further comprising a pretreatment tank disposed upstream relative to the treating tank and having at least two walls formed with a liquid inlet and a liquid outlet through each of which a liquid to be treated flows, respectively, and a rough filtration layer which is provided so as to surround the liquid outlet in the pretreatment tank and is capable of catching a grain which is contained in the liquid and has a grain size not less than 0.5 mm.

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3. A liquid treating apparatus according to claim 1, wherein the antibacterial filtering layer contains an antibacterial agent comprising an inorganic material serving as a carrier such as ceramic and silver or copper carried on the carrier and having an elution volume of antibacterial component not more than 50 ppb.

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4. A liquid treating apparatus according to claim 2, wherein the antibacterial filtering layer contains an antibacterial agent

comprising an inorganic material serving as a carrier such as ceramic and silver or copper carried on the carrier and having an elution volume of antibacterial component not more than 50 ppb.

5 5. A liquid treating apparatus according to claim 1, wherein the adsorptive filtering layer includes an adsorbing material having a large specific surface area.

10 6. A liquid treating apparatus according to claim 2, wherein the adsorptive filtering layer includes an adsorbing material having a large specific surface area.

15 7. A liquid treating apparatus according to claim 3, wherein the adsorptive filtering layer includes an adsorbing material having a large specific surface area.

20 8. A liquid treating apparatus according to claim 4, wherein the adsorptive filtering layer includes an adsorbing material having a large specific surface area.

 9. A liquid treating apparatus according to claim 1, wherein the filtering layer includes a filter medium catching not less than 90% of grain having a grain size not less than 10 μm .

25 10. A liquid treating apparatus according to claim 2, wherein the filtering layer includes a filter medium catching not less than 90% of grain having a grain size not less than 10 μm .

11. A liquid treating apparatus according to claim 3, wherein the filtering layer includes a filter medium catching not less than 90% of grain having a grain size not less than 10 μm .

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12. A liquid treating apparatus according to claim 4, wherein the filtering layer includes a filter medium catching not less than 90% of grain having a grain size not less than 10 μm .

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13. A liquid treating apparatus according to claim 5, wherein the filtering layer includes a filter medium catching not less than 90% of grain having a grain size not less than 10 μm .

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14. A liquid treating apparatus according to claim 6, wherein the filtering layer includes a filter medium catching not less than 90% of grain having a grain size not less than 10 μm .

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15. A liquid treating apparatus according to claim 7, wherein the filtering layer includes a filter medium catching not less than 90% of grain having a grain size not less than 10 μm .

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16. A liquid treating apparatus according to claim 8, wherein the filtering layer includes a filter medium catching not less than 90% of grain having a grain size not less than 10 μm .

17. A liquid treating apparatus according to any one of claims 1 to 16, wherein the antibacterial filtering layer, the adsorptive

filtering layer and the filtering layer are attachable and detachable independent of one another.

18. A liquid treating apparatus comprising:

5 a first tank having at least two walls formed with a liquid inlet and a liquid outlet through each of which a liquid to be treated flows, respectively;

 a rough treatment layer provided so as to surround the liquid outlet in the first tank;

10 a second tank having at least two walls formed with a liquid inlet and a liquid outlet through each of which the liquid to be treated flows;

 a filtering layer unit provided so as to be located between the liquid inlet and outlet in the second tank and including an
15 antibacterial filtering layer, an adsorptive filtering layer and a filtering layer, the antibacterial filtering, adsorptive filtering and filtering layers being each formed into a cylindrical shape and disposed concentrically with one another in the second tank; and

20 piping connecting the outlet of the first tank to the inlet of the second tank.